

**BUS FILTER FOR MEMORY ADDRESS TRANSLATION****ABSTRACT OF THE DISCLOSURE**

5 A bus filter and filtering method for translating between virtual and physical memory addresses. The bus filter may be used to couple a processing device, such as an accelerator, to a system having a core processor and an external memory unit coupled by a bus.

The bus filter includes a first bus interface connected to the system bus for receiving a virtual memory address and a second interface connected to the system  
10 bus for transmitting a physical memory address. An address translation unit, such as a translation lookaside buffer, determines the physical memory address from the virtual memory address.